

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: May 21, 1997
Date Received: May 14, 1997
Project: Metro Grab, PO #M57191
Date Samples Extracted: May 15, 1997
Date Extracts Analyzed: May 16, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M57191	0.29	0.24	0.29	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS FOR
 THE ANALYSIS OF WATER SAMPLES
 FOR TOTAL METALS BY
 INDUCTIVELY COUPLED PLASMA (ICP)
 (METHOD 6010)**

Laboratory Code: 78022 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.29	0.29	0	0-20
Copper	mg/L (ppm)	0.24	0.23	4 a	0-20
Nickel	mg/L (ppm)	0.29	0.27	7	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 78022 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.29	88	94	80-120	7
Copper	mg/L (ppm)	5	0.24	85	89	80-120	5
Nickel	mg/L (ppm)	10	0.29	87	94	80-120	8
Zinc	mg/L (ppm)	5	<0.05	89	97	80-120	9

Laboratory Code: Spike Blank

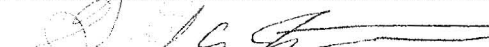
Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	99	100	80-120	1
Copper	mg/L (ppm)	5	96	96	80-120	0
Nickel	mg/L (ppm)	10	101	100	80-120	1
Zinc	mg/L (ppm)	5	101	101	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.



a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

KJ B4
May 14, 1997 1050

Send Report To: Alaskan Copper Works Contact Gerald A. Thompson
 Company: 6028 Henderson St
 Address: Seattle WA 98174
 City, State, Zip: (206) 382-8379 Date 5-14-97

DATE NO.	PROJECT NAME	PURCHASE ORDER #
7238	metro metro Grab	M57191
ANALYSTS (signature)		PROJECT LOCATION
		3200 64th Ave S.
REMARKS		SAMPLE DISPOSAL INFORMATION
		<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald Thompson	ACW	5/14/97	10:47 AM
Received by: 	Siri Nelson	FBI	5/14/97	6:48 AM
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth Albertson, M.S.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.
Melanie Kirol, B.S.
May 21, 1997

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

**INVOICE # 97ACU0521-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Grab, PO #M57191: Results of testing requested by Gerry Thompson, Project Manager for material submitted on May 14, 1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

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May 21, 1997

**Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134**

Dear Mr. Thompson:

**Included are the results from the testing of material submitted on May 14, 1997
from your Metro Grab, PO #M57191 project.**

**We appreciate this opportunity to be of service to you and hope you will call if you
should have any questions.**

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to read 'Kurt Johnson', with a stylized flourish at the end.

**Kurt Johnson
Chemist**

**keh
Enclosures
ACU0521R.DOC**